SCIENCE

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POLICY OF THE SMITHSONIAN INSTITUTION.

IN our issue of November 21, we commented on certain recent proceedings of the Smithsonian Institution having an important bearing on the question of its policy. We now return to the subject, in order to review the question at issue from a more comprehensive standpoint.

The Smithsonian Institution should be regarded as a sacred trust confided to our government by a foreigner for a specific purpose. We are bound to administer this trust in accordance with the expressed will of the donor, who defined it as 'an institution for the increase and diffusion of knowledge among men.' A point of fundamental importance which should not be overlooked is that the bequest was not made to second the efforts of our government to increase and diffuse knowledge, but to found an institution which should itself do so. Questions to be considered are: What are the funds available for these purposes and how are they used to increase and diffuse knowledge? We summarize from the last annual report the following

statement of the principal and income of the fund:

	Principal.	Income.
Smithsonian fund proper....	$650,000	$39,000
Miscellaneous additions.....	62,000	3,720
Hodgkins gift	200,000	12,000
Hodgkins special fund.....	42,500	1,680
Total	$954,500	$56,400

Of the Hodgkins gift the income of $100,000 is to be especially devoted to increasing and diffusing knowledge of the atmosphere and related subjects connected therewith. Leaving this out of consideration, there is still an annual income of $50,400 available for the general purposes of the establishment.

Passing to the question of the expenditure of this amount, the first item to demand our attention is that of international exchanges. The number of packages handled by this bureau during the past year was 121,060. What does this bureau cost the institution annually? If we interpret aright the statements in the report, the answer will be, nothing at all. A clear profit seems to be made from it through the fact that the government appropriation for the bureau, together with the payments received from freight, more than balance the cost of the service. The account seems to admit of being stated in the following form, using only round numbers: The institution expends $5,758.24 in addition to the government appropriation of $24,000. But the repayments for freight, etc., were $10,240.80, leaving a clear profit of $4,482.56. It follows that the bureau in question, instead of being a draft upon the income of the Smithsonian fund, is an important source of profit to it. Adding this profit to the regular income, we have a total of more than $58,000 available for other purposes.

How is this expended? On this point we have few details, only general statements, which tell us very little. Rearranging the statements in our own way, they may be summarized as follows: Somewhat more than $29,000, or fully one half of the whole amount, is reported to have been paid for salaries and services. What were the services rendered in return, and what is the outcome of the expenditure? These are questions to which no definite answer is made. Only two officers are given in the annual report, and one of these draws a salary from the government appropriation for the National Museum. The names of individuals are, of course, of no importance, but the offices which they fill and the services which they render are matters of public interest and should be made known with the same fullness that they are in the case of a government bureau. We can only guess that the amounts constitute the salaries of the Secretary and his immediate assistants, and of persons employed in various miscellaneous functions in connection with the National Museum and other government establishments under the control of the institution.

Under another general head will come about $12,665 for what we may call general administrative expenses, classified in the report as building, furniture, incidentals, books, periodicals, etc.

The third class includes publications and researches. Here again the information is

only of the vaguest kind. The amount spent for researches was $4,686, of which $2,151 was for salaries and personal services, but no specific statement is made of the amount expended on any particular research, nor, in fact, are any researches reported except those made at the expense of the Hodgkins fund. As the available income for this purpose is considerably greater than the whole amount reported as spent in researches, we are left to infer that no researches are made at the expense of the Smithsonian fund proper. Nearly $2,000 was spent for reports, what reports is not stated. There is an additional item of $4,473.51 expended from the Hodgkins fund, but with what object is not stated. It is not necessary to enumerate the other items as given, because they fail to give us any information of interest. Our own reclassification of the reported income and expenditures is as follows:

INCOME.

Interest on funds in U. S. Treasury..	$54,720.00
Interest on West Shore bonds.....	1,680.00
Profits on international exchanges...	4,482,56
Cash from sales of publications.....	188.59
Total net income.....	$61,071.15

EXPENDITURES.

Salaries and services.....	$29,566.06
Other expenses of administration.....	12,665.56
Publications, reports, researches, etc..	6,621.83
Expended from Hodgkins' fund.....	4,473.51
Surplus for the year.....	7,744.19
Total	$61,071.15

The surplus of $7,744.19 is the same that follows from the report as the increase in cash on hand. The main points in which we have rearranged the statements are the deduction of the expenditure for exchanges from the amount received for freight and the classification by themselves of all payments for salaries and services.

In the large amount, nearly four fifths of the whole expenditure, for salaries and administrative expenses, and the smallness of the fraction devoted to the increase or diffusion of knowledge in any definable way we are brought face to face with two policies on which views have been divided since the foundation of the institution. One of these was distinctly the policy of Professor Henry, enforced by him on every opportunity—the devotion of the institution to the original purpose desired by Smithson, of increasing and diffusing knowledge. The other policy was the more popular one of making the institution an auxiliary to government efforts in the same direction, by charging it with the care of the government collections and improving science and art generally at the national capital. How strong the present tendency in the latter direction may be seen in the preceding analysis. Apart from this it does not look well to see one half the entire Smithsonian income paid to unknown persons for unknown services.

The expenditure of so large a sum as the present income of the Smithsonian Institution in increasing and diffusing knowledge is a noble work, and its efficient prosecution demands the entire time and energy of the head of the institution. No more worthy expenditure of that time and

energy can be found—none which would place the institution and its head higher in the estimation of the world of learning —than its exclusive devotion to this object. Without any disrespect to the functions of the general administrator of the National Museum, the Zoological Park and other government establishments under the direction of the Smithsonian Institution, we cannot but feel that the functions we have described as appropriate are of a higher order, especially when performed by men of the eminent standing in the scientific world which has been held by the three secretaries of the institution.

It also seems to us much to be regretted if, as we interpret the statement of the report, the larger part of the income from the Smithsonian fund is employed in filling deficiencies in the government appropriations for the care and exhibition of its collections. The Smithsonian building is not necessary for the proper purposes of the institution. It is, indeed, almost entirely occupied by collections which are the property of the United States. If, as we suppose, some $40,000 of the income is expended in operations connected with and going on in this building and in the National Museum, then the divergence of the policy from that defined by the first secretary of the institution is marked indeed.

We do not overlook the claim that all the objects of expenditure may be in the line of diffusing knowledge. But, if we admit this claim, we must also grant that the most powerful agency employed by our government for this purpose is the Government Printing Office. It is difficult to see why the Smithsonian income might not be as legitimately expended in the support of this office as in the housing, care and exhibition of the government collections.

If our view, based on these considerations, is correct, two radical changes should be made in the policy in question. The separation advocated by Professor Henry between the Smithsonian Institution and bureaus of the government placed under its control, should be carried out. Whatever reasons may have existed in former times for this combination have now ceased to be operative. We have a Department of Agriculture to which most of the work in question appropriately belongs, against the administration of which not a shadow of suspicion is felt. The government should make all the appropriations necessary for the care, preservation and exhibition of its collections, without putting any part of this expense on the bequest of a foreigner. The time of the head of the institution should not be taken up with administrative details, but should be devoted to the application of its large income to the worthy purpose of increasing and diffusing knowledge. We are sure that, by taking this step, the standing of the institution and of its head in the eyes of the scientific public would be greatly enhanced.

The other measure is complete publicity of the operations and expenditures of the institution. Instead of the general statements of expenditure now in the reports, we should have a specific statement of the

purpose of each expenditure, and of the results reached by it.

These suggestions involve no reflection upon the eminent citizens who form the board of regents of the institution. We are sure that none will grasp the situation more readily than they when once it is brought to their attention. We feel that they are abundantly able to judge of the good policy of expending almost the entire income of the fund entrusted to them in eking out the appropriations made by congress for the National Museum and other local objects. If the claim is made that the Smithsonian Institution is in touch with the science of the world by its system of international exchanges, and with the people of the country through its annual reports, they are abundantly able to see that the prosecution of the first is a source of gain to the institution, and that its annual reports, being printed by Congress, cost the institution far less than the profit upon exchanges, so that the entire income is still available for other objects. We believe that the more carefully the able members of the board of regents consider this subject, in the light of past experiences and present conditions, the more fully they will appreciate the force of the considerations we have suggested.

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*THE ACADEMY OF SCIENCES.**

TWENTY-THREE centuries ago, when the first and fairest flowers of civilization were in blossom, Plato and his friends met together in an Athenian garden to talk of the things that appeared to them to be beautiful, good and true. The garden was called 'The Academy,' and the word has ever since maintained the high traditions of its origin, uniting the ideas of friendly social intercourse and the search for truth. The philosophy of Plato was passed on to his disciples, so that we read of fourth and fifth academies; it was transplanted to Rome, where Cicero named his country house 'The Academy,' and to Alexandria, where mystical neo-platonism long resisted the dogmatic rationalism of the church.

As part of the Italian renaissance, when civilization was once more young, vigorous and beautiful, as in the Greek period, the word 'academy' was revived and used to name a society of scholars. Cosimo dei Medici, the Elder, established at Florence in the fifteenth century a *Platonic Academy,* and academies of letters by the hundred flourished in Italy during the sixteenth century. In 1560 there was established at Naples by the versatile Giambattista della Porta the first academy of sciences—*Academia Secretorum Naturæ*—to which only those were admitted who had contributed to the advancement of science or medicine. The academy at Naples was suppressed on the accusation that it practised the black arts; but soon afterwards there was established at Rome, with Galileo as one of its members, the *Accademia dei Lincei,* which was later revived and is now one of the great national academies.

The mere word 'academy' is of course unimportant; societies of scholars are not always called academies, nor are all academies societies of scholars. The beginnings of associations for the advancement of knowledge are to be found in savage tribes, developing with the state of civilization, usually in the form of guilds of priests, until we reach the Greek period, whence we date our philosophy and our science. The culture of Greece was carried to Alexandria, where Ptolemy Soter, supposed to be the son of Alexander the Great, estab-

* Address of the president of the New York Academy of Sciences, read on December 15, 1902.